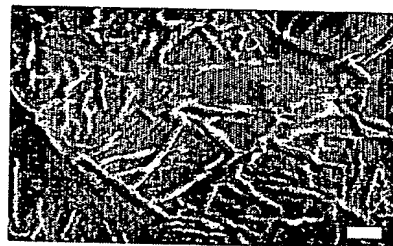
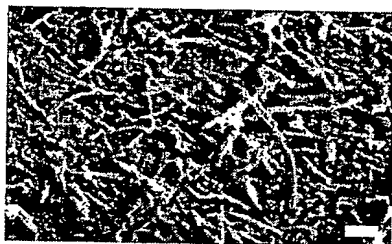


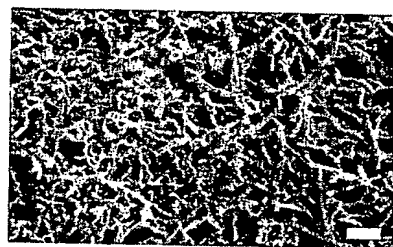
(a) 100:0 (PU:CN wt. %)



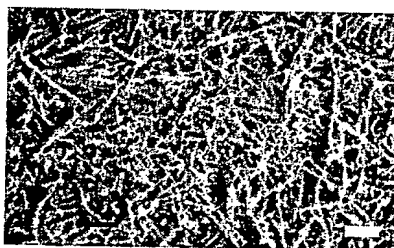
(b) 98:2 (PU:CN wt. %)



(c) 90:10 (PU:CN wt. %)



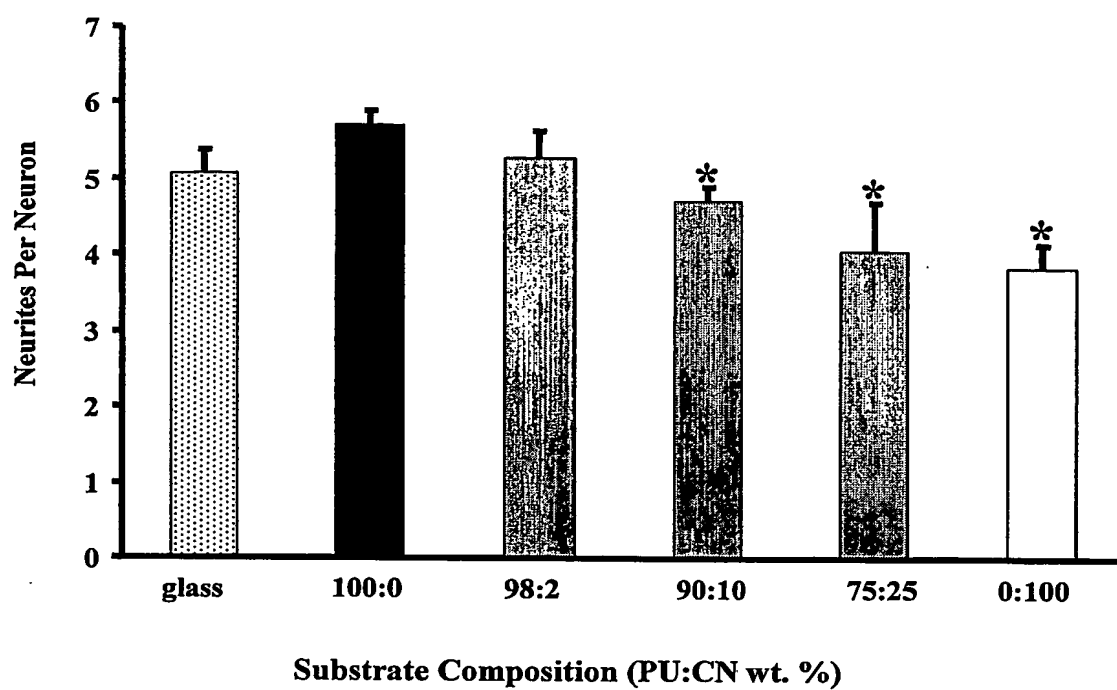
(d) 75:25 (PU:CN wt. %)

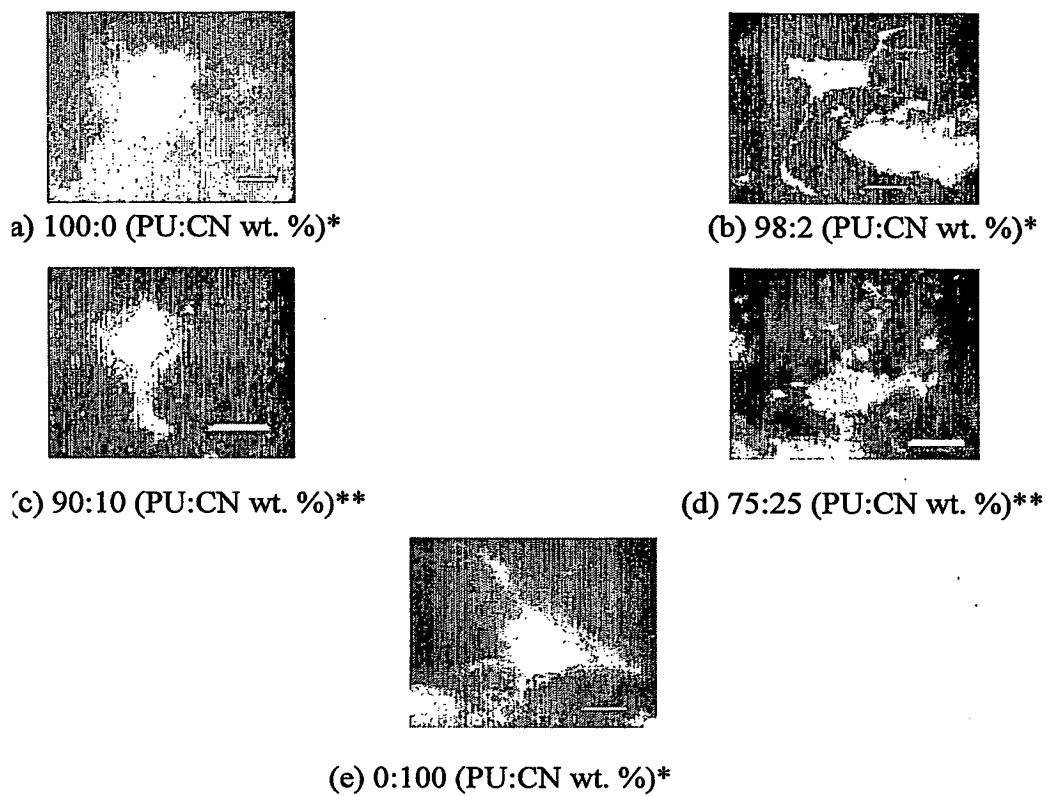


(e) 0:100 (PU:CN wt. %)

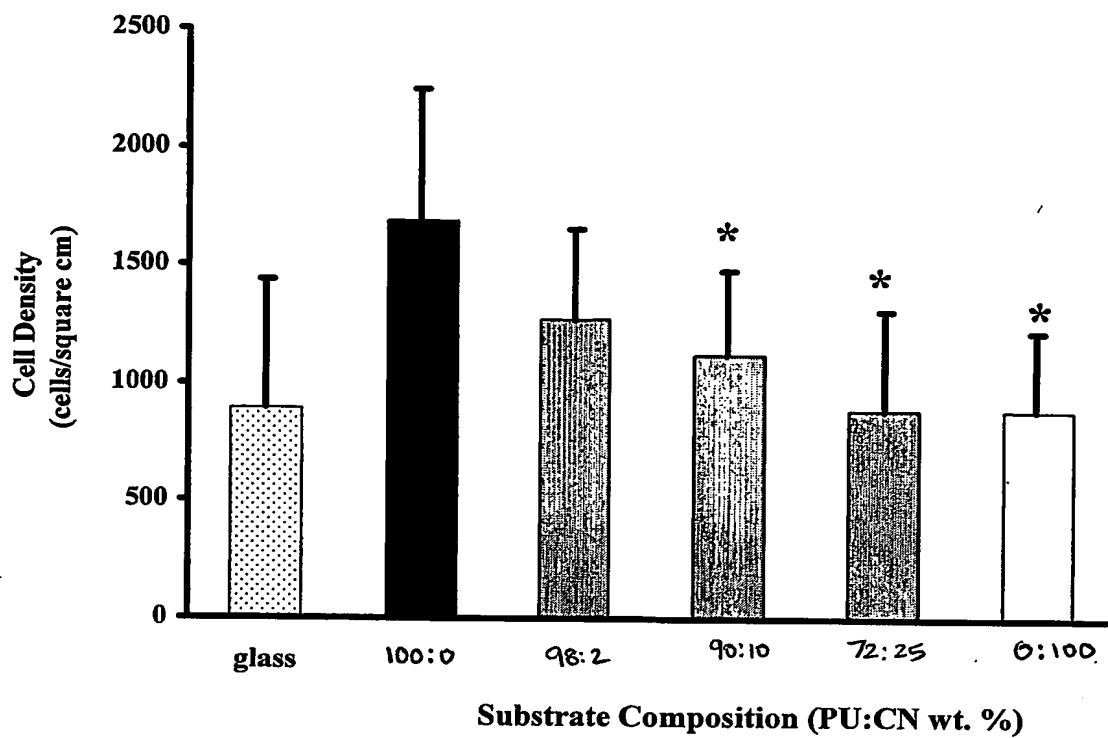
FIG. 1

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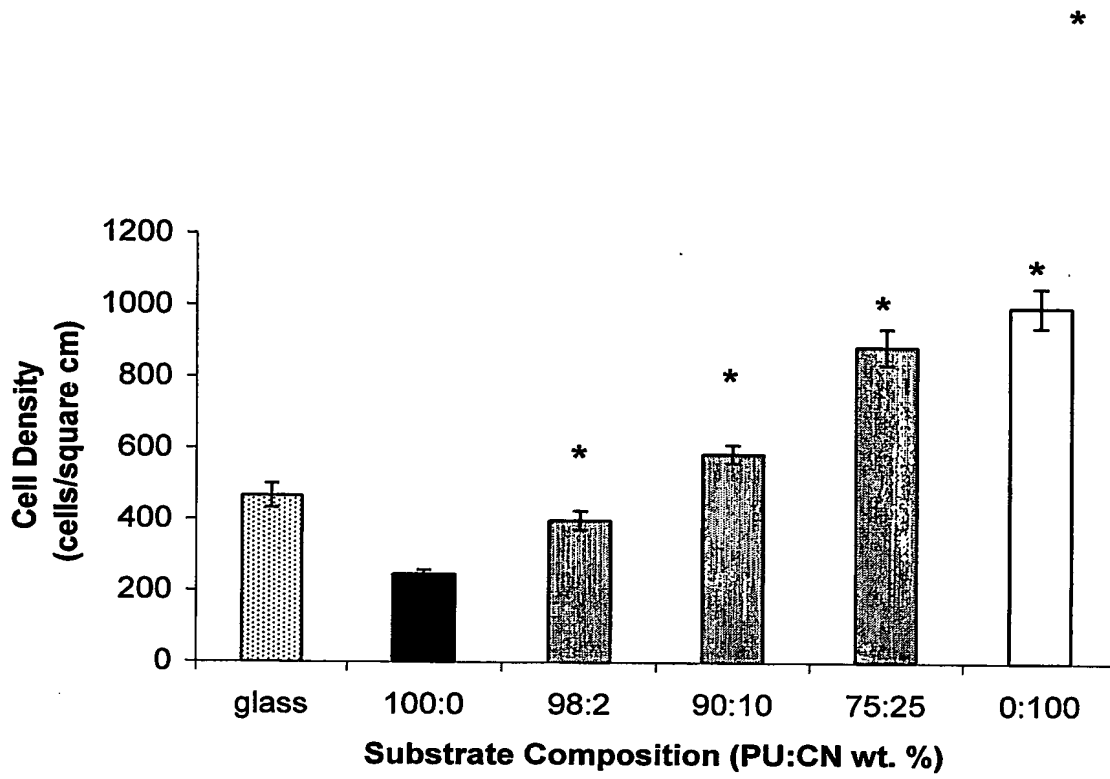
**FIG. 2**

**FIG. 3**

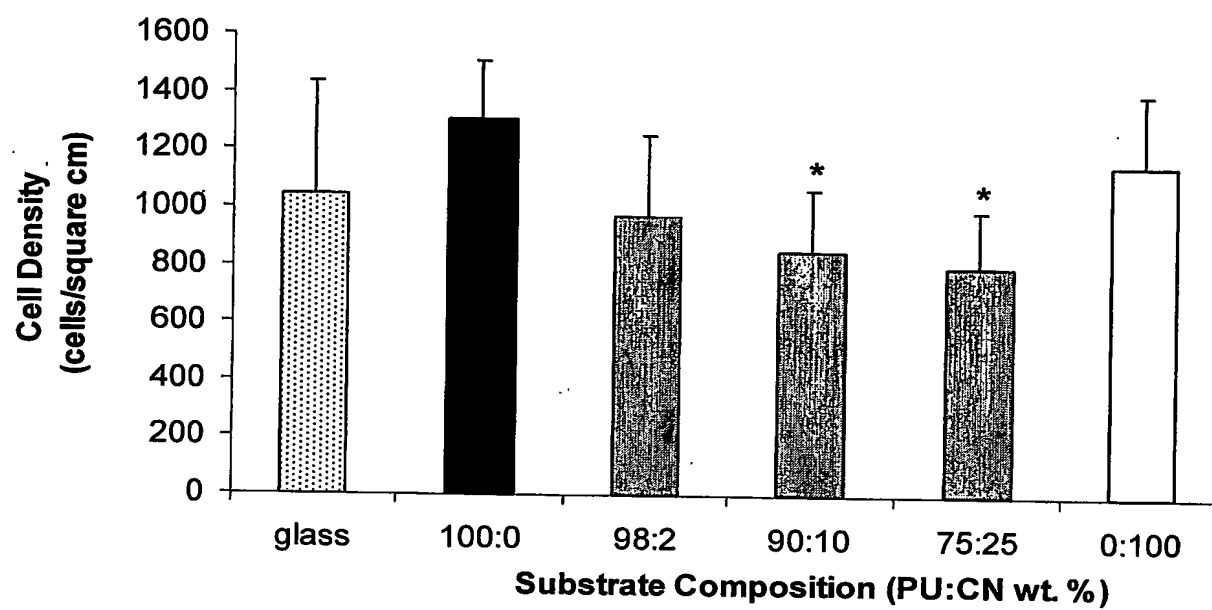
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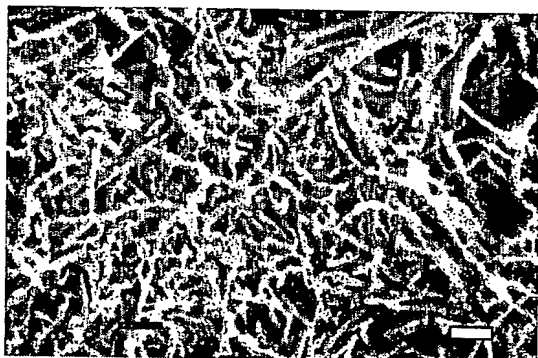
**FIG. 4**

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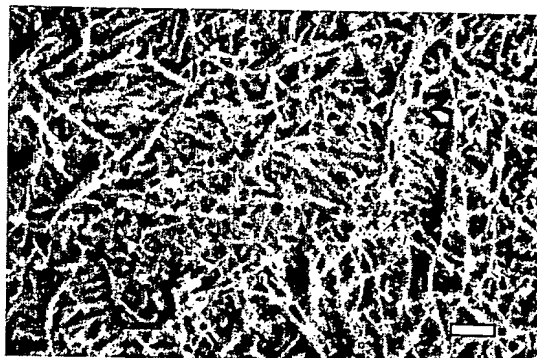
**FIG. 5**

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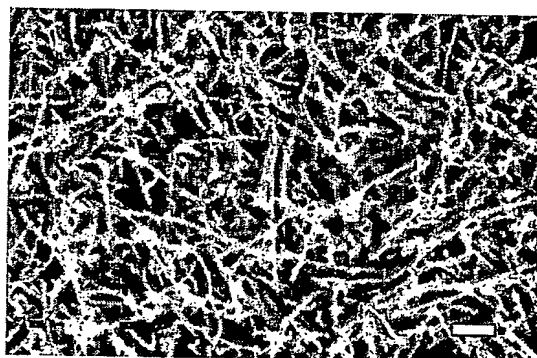
**FIG. 6**



(a) Conventional (200 nm) with a low surface energy

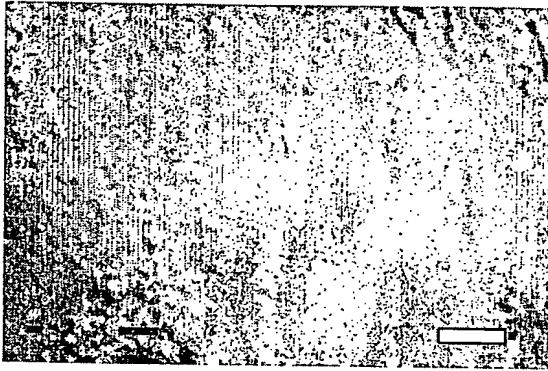


(c) Nanophase (100 nm) with a low surface energy

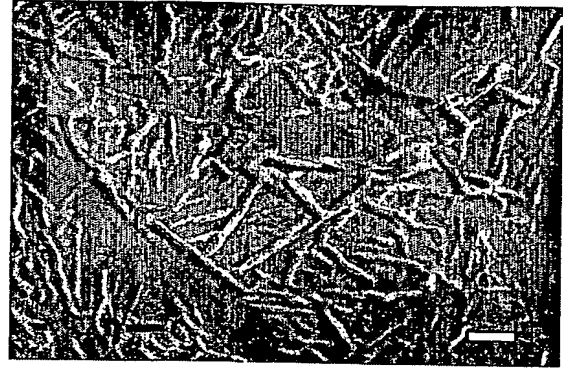


(d) Nanophase (60 nm) with high surface energy

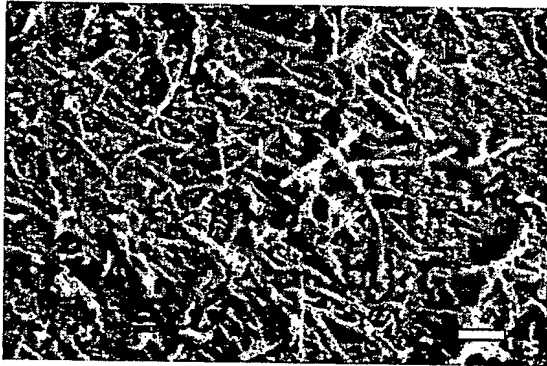
FIG. 7



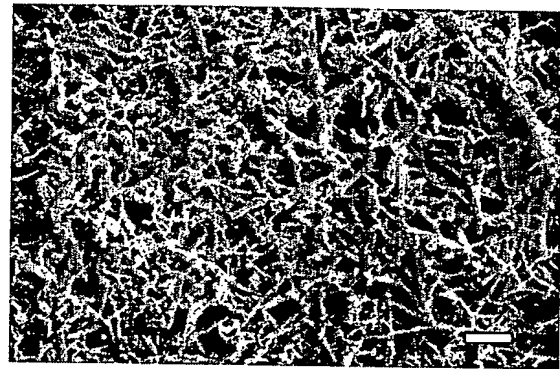
(a) Composition is 100:0 (PCU:CN) wt. %



(b) Composition is 98:2 (PCU:CN) wt. %



(c) Composition is 90:10 (PCU:CN) wt. %



(d) Composition is 75:25 (PCU:CN) wt. %

FIG. 8

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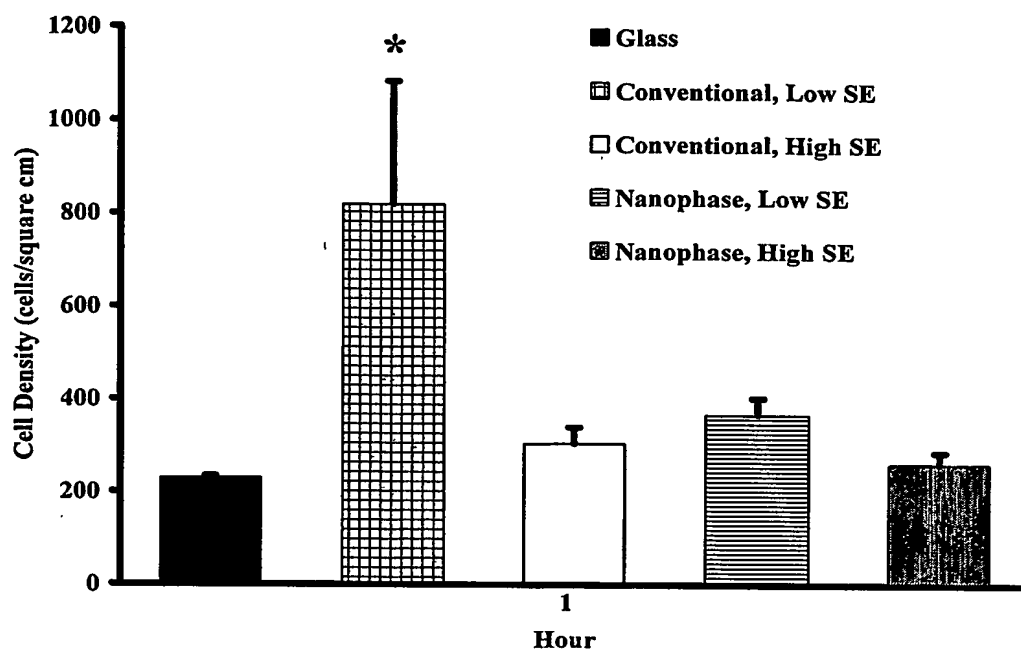


FIG. 9

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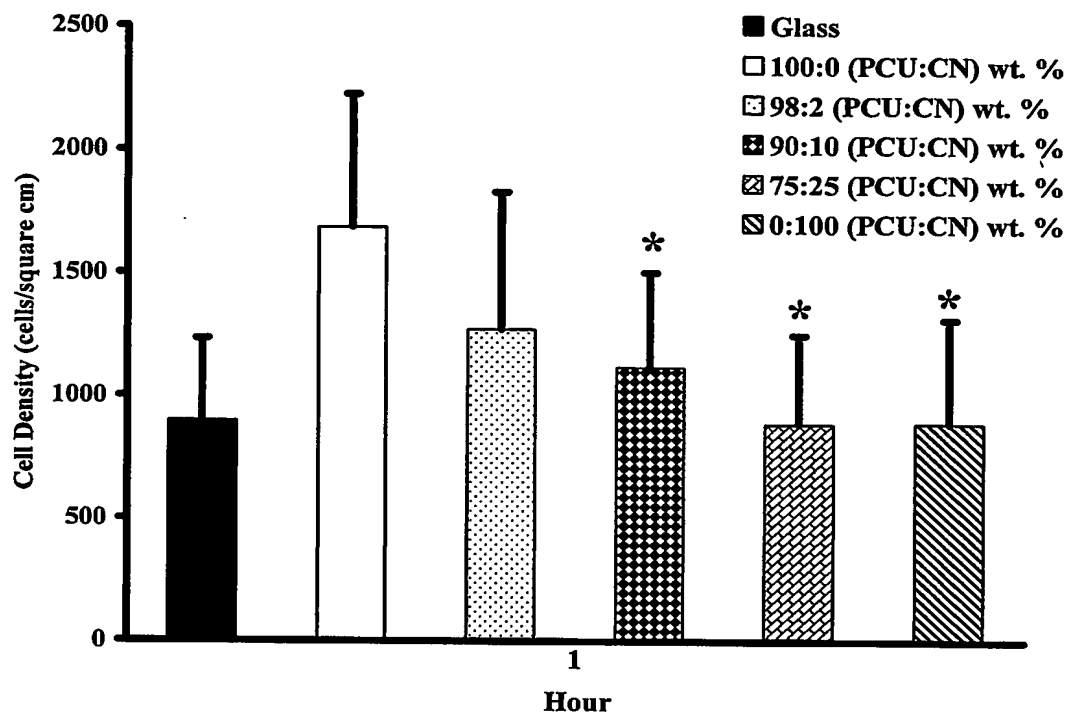


FIG. 10

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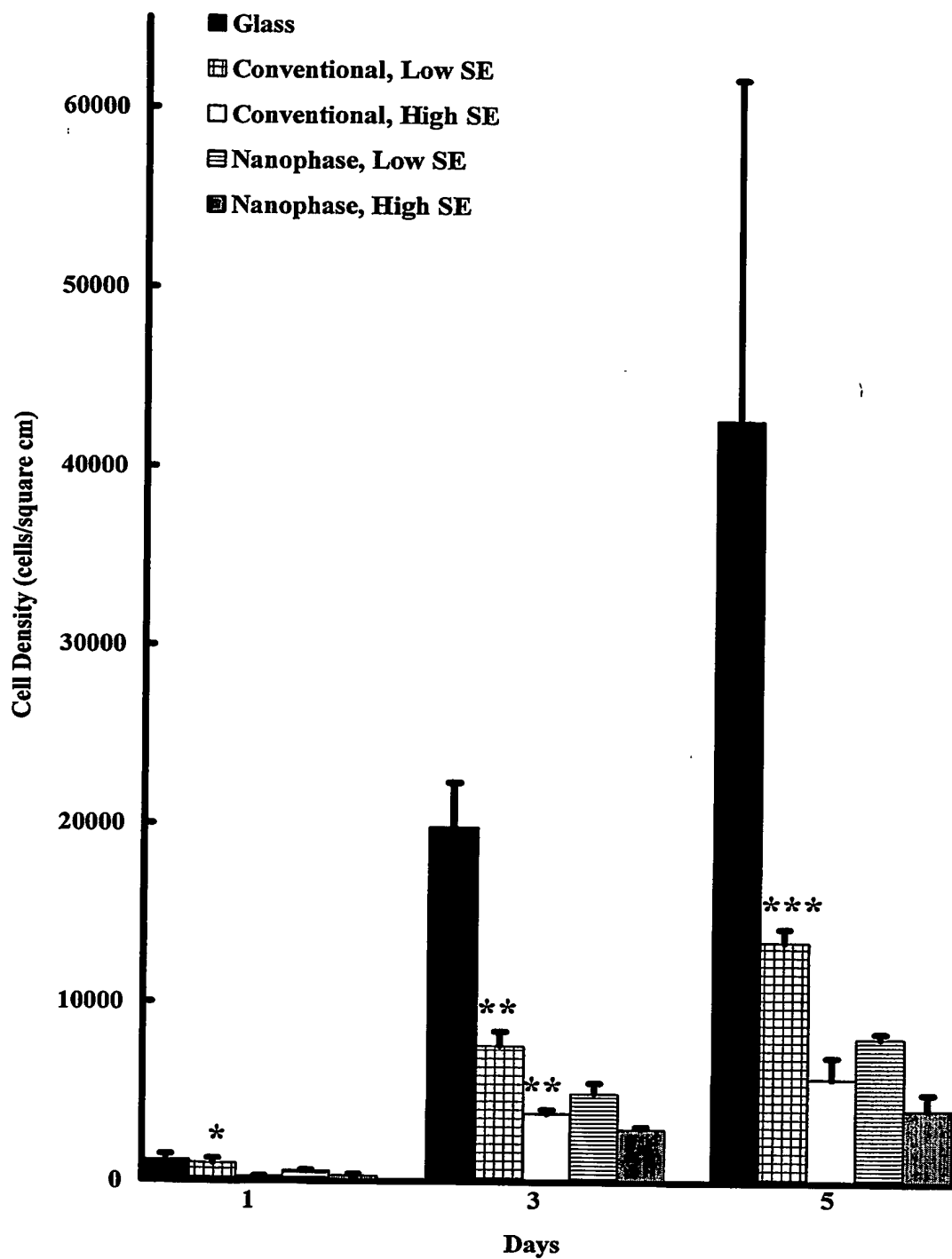


FIG. 11

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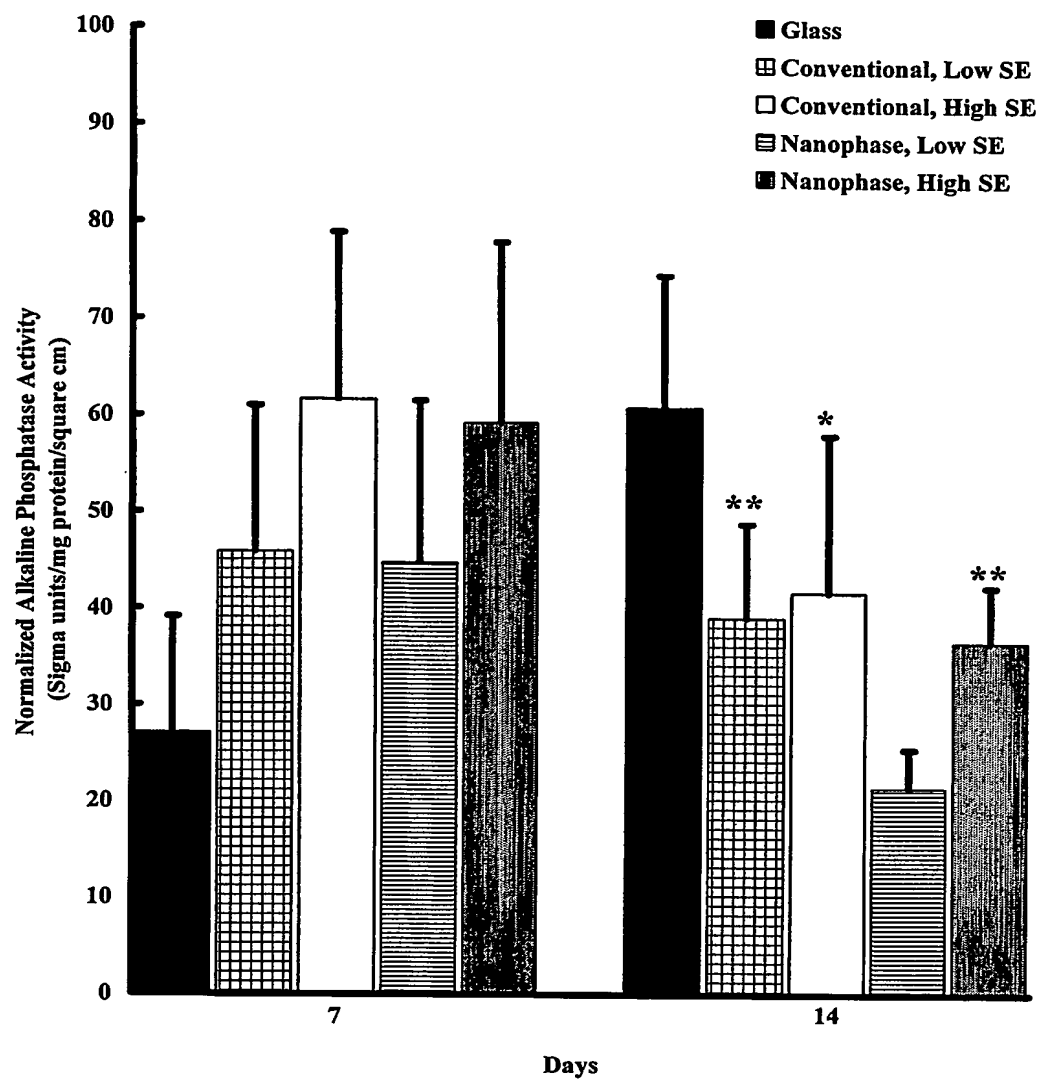
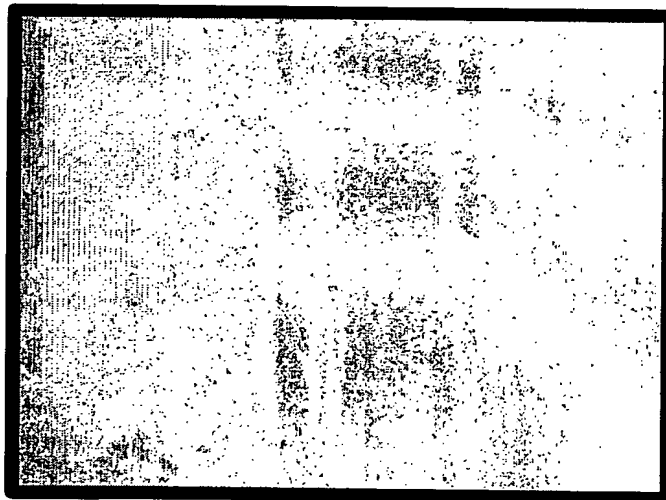


FIG. 12



**High surface energy carbon nanofibers in
polymer without an applied electric field**



**High surface energy carbon nanofibers in
polymer with an applied electric field**

FIG. 13